CLAIMS

What we claim and desire to secure by Letters of Patent of the United States are the following:

1. An integrated video camera system for capturing a video image of an element comprising;

(a) a digital data processor for executing program steps ;

(b) a memory module in communication with the digital data processor for storing program steps and for storing digital data in data fields provided on the memory module;

(c) a barcode associated with the element, said barcode comprising a bar pattern representative of an identifying name of the element; and,

(d) a barcode scanner, in communication with the digital data processor, for generating an electrical signal in response to scanning the barcode and wherein the electrical signal is interpreted by the digital data processor to associate the identifying name of the element with an appropriate data field provided on the memory module.

2. The integrated camera system of claim 1 wherein upon capturing a video image of the element, the video image of the element is stored onto the memory module with the identifying name of the element associated therewith.

3. The integrated camera system of claim 2 wherein the memory module includes a first data field having the identifying name of the element stored therein and a second data field associated with the first data field for storing a video image of the element therein.

4. The integrated video camera system of claim 1 further comprising a video display device in communication with the digital data processor for viewing the video image of the element and for viewing the identifying name of the element.

5. The integrated video camera system of claim 1 further comprising a keypad in communication with the digital data processor for providing an operator interface to the video camera system.

6. The integrated video camera system of claim 1 wherein the memory module further comprises;

(a) an internal memory associated with the video camera system and in communication with the digital data processor for storing the program steps; and,

(b) a removable memory module for storing the digital data in the data fields.

7. The integrated video camera system of claim 6 wherein the removable memory comprises a PCMCIA memory card installed in a PCMCIA slot of the video camera system.

8. An integrated video camera system for capturing a plurality video images of a plurality of

elements included in a videographic survey and wherein each of the plurality of elements has an identifying name, comprising;

(a) a digital data processor for executing program steps ;

(b) a memory module in communication with the digital data processor for storing the program steps and for storing digital data fields relating to each of the plurality of elements, said memory module including a separate data field for storing each of the identifying names of the plurality of elements;

(c) a plurality of bar-codes, one barcode associated with each of the plurality of elements, each of the plurality of bar-codes comprising a bar pattern representative of the identifying name of the element associated the one barcode; and,

(d) a barcode scanner, in communication with the digital data processor, for generating an electrical signal in response to scanning the one barcode and wherein the electrical signal is interpreted by the digital data processor to associate the identifying name of the element associated with the one barcode with an appropriate data field provided on the memory module.

9. The integrated camera system of claim 8 wherein upon capturing a video image of the element associated with the one barcode, the video image of the element associated with the one barcode is stored onto the memory module with the identifying name scanned from the one barcode associated therewith.

10. The integrated camera system of claim 9 further comprising a video display device in communication with the digital data processor for viewing display screen images generated by the data processor according to program steps said display screens displaying digital data fields stored in the memory module.

11. The integrated camera system of claim 10 wherein upon scanning the one barcode, the identifying name of the element associated with the one barcode is determined by the data processor and a display screen having data fields relating to the identifying name of the element associated with the one barcode is displayed on the video display device.

12. The integrated video camera system of claim 10 wherein the memory module further comprises;

(a) an internal memory associated with the video camera system and in communication with the digital data processor for storing the program steps; and,

(b) a removable memory module for storing the digital data in the data fields.

13. The integrated video camera system of claim 12 wherein the removable memory comprises a PCMCIA memory card installed in a PCMCIA slot of the video camera system.

14. A method for capturing a video image of an element with a video camera system which includes a digital data processor for executing program steps, a memory module in communication with the digital data processor for storing the program steps and for storing digital data in data fields and a barcode scanner in communication with the digital data processor, the method comprising the steps of;

(a) associating a barcode with the element, said barcode comprising a bar pattern representative of an identifying name of the element;

(b) scanning the barcode with the barcode scanner thereby generating an electrical signal in response to scanning the barcode; and,

(c) interpreting the electrical signal according to the program steps to associate the identifying name of the element scanned from the bar pattern with an appropriate data field provided on the memory module.

15. The method according to claim 14 further comprising the steps of:

(a) capturing a video image of the element; and,

(b) storing the video image of the element onto the memory module in an image data field having the identifying name of the element associated therewith.

16. The method according to claim 14 further comprising the steps of:

(a) establishing a plurality of digital data fields on the memory module for storing

digital data associated with the element;

(b) storing the identifying name of the element in one of the plurality of data fields; and,

(c) associating the identifying name of the element with all of the other of the plurality of digital data fields.

17. The method according to claim 15 further comprising the steps of:

(a) establishing a plurality of digital data fields on the memory module for storing digital data associated with the element;

(b) storing the identifying name of the element in a first of the plurality of data fields;

(c) storing the video image of the element in a second of the plurality of data fields; and,

(d) associating the identifying name of the element stored in the first of the plurality of data fields with all of the other of the plurality of digital data fields.

18. The method according to claim 15 further comprising the steps of:

(a) retrieving the image data field and the identifying name of the element from the memory; and,

(b) displaying the video image of the element and the identifying name of the element on a video display device associated with the video camera system.

19. The method of claim 17 further comprising the steps of:

(a) determining a plurality of parameters relating to the step of capturing the video image of the element; and,

(b) storing the plurality of parameters in the plurality of data fields established on the memory module and associated with the identifying name of the element.

20. The method according to claim 19 further comprising the steps of:

(a) retrieving the image data field, the identifying name of the element and the plurality of data fields associated with the element from the memory module; and,

(b) displaying the video image of the element, the identifying name of the element and the plurality of data fields associated with the element on a video display device associated with the video camera system.

21. The method according to claim 15 further comprising the steps of ;

(a) storing the program steps in an internal memory associated with the video camera system; and,

(b) wherein the step of storing the video image of the element stores the video image onto a removable memory module which is removable from the video camera system.

22. The method according to claim 21 wherein the removable memory module comprises a PCMCIA memory card installed in a PCMCIA slot of the video camera system.

23. A method for capturing a plurality of video images of a plurality of elements included in a videographic survey wherein each of the plurality of elements has an identifying name, the plurality of video images being captured with an integrated video camera system which includes a digital data processor for executing program steps, a memory module in communication with the digital data processor for storing the program steps and for storing digital data in data fields, the method comprising the steps of:

(a) associating a plurality of bar-codes with the plurality elements of the videographic survey, each of said plurality of bar-codes comprising a bar pattern representative of the identifying name of the element associated with the barcode;

(b) scanning a first barcode associated with a first of the plurality of elements with the barcode scanner thereby generating an electrical signal in response to scanning the first barcode; and,

(c) interpreting the electrical signal to determine the identifying name scanned from the bar pattern of the first barcode to associate the identifying name of the first element with an appropriate data field on the memory module.

24. The method according to claim 23 further comprising the steps of:

(a) capturing a video image of the first element; and,

(b) storing the video image of the first element onto the memory module in an image data field having the identifying name of the first element associated

therewith.

25. The method according to claim 24 further comprising the steps of:

(a) establishing a plurality of digital data fields on the memory module for storing digital data associated with each of the plurality of elements of the survey;

(b) storing the identifying name of each of the plurality of elements of the survey in separate data fields of the plurality of data fields; and,

(c) associating the identifying name of each of the plurality of elements of the survey with a portion of the plurality of digital data fields such that each of the plurality of elements includes a plurality of data fields associated with the identifying name of the element.

26. The method according to claim 24 further comprising the steps of:

(a) retrieving the image data field having the identifying name of the first element associated therewith; and,

(b) displaying the video image of the first element and the identifying name of the first element on a video display device associated with the video camera system.

27. The method according to claim 25 further comprising the steps of:

(a) retrieving the image data field having the identifying name of the first element

associated therewith; and,

(b) displaying the video image of the first element, the identifying name of the first element and the plurality of data fields associated with the first element on a video display device associated with the video camera system.

28. A method for performing a videographic survey of a plurality of elements comprising the steps:

(a) preparing a videographic survey database on a base computer, the videographic survey database including a plurality of data fields for storing data associated with each of the plurality of elements, the database including one data field for storing an identifying name for each of the plurality of elements and a data field for storing a video image of each of the plurality of elements, the data fields for storing the identifying name each being associated with an appropriate data field for storing a video image of each elements of the survey;

(b) transferring the data fields to a memory module associated with a video camera system;

(c) associating a plurality of bar-codes, one barcode with each of the plurality of elements, each of the plurality of bar-codes including a bar pattern representative of the identifying name of the element associated with the barcode;

(d) scanning a first of the plurality of bar-codes with a barcode scanner in

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communication with the video camera system to determine the identifying name of the element associated with the first barcode; and,

(e) selecting the appropriate data field of the database for storing a video image of the element associated with the first barcode.

29. The method according to claim 28 further comprising the step of capturing a video image of the element associated with the first barcode with the video camera system and storing the video image of the element in the appropriate data field of the database.

30. The method according to claim 28 further comprising the steps of:

(a) scanning the remaining of the plurality of bar-codes with the barcode scanner;

(b) selecting the appropriate data field of the database for storing a video image of the remaining of the plurality of elements associated with the remaining of the plurality of bar-codes; and,

(c) capturing a video image of each of the remaining of the plurality of elements of the videographic survey and storing the video image of each of the remaining of the plurality of elements of the survey in the appropriate data field of the database such that the identifying name of the remaining of the plurality of elements is associated with the video image of remaining of the plurality of elements.

31. The method according to claim 30 further comprising the step of transferring the data

fields stored on the memory module to the base computer.

32. The method according to claim 31 further comprising the step of analyzing the videographic survey data using programs stored on the base computer.

33. The method according to claim 31 further comprising the step of archiving the videographic survey data onto a memory associated with the base computer using programs stored on the base computer.

34. The method according to claim 28 further comprising the steps of:

(a) scanning less than the remaining of the plurality of bar-codes with the barcode scanner;

(b) selecting the appropriate data field of the database for storing a video image of the elements associated with less than the remaining of the plurality of bar-codes; and,

(c) capturing a video image of the less than the remaining of the plurality of elements of the videographic survey and storing the video image of each of the less than remaining of the plurality of elements of the survey in the appropriate data field of the database such that the identifying name of the less than remaining of the plurality of elements is associated with the video image of the less than remaining of the plurality of elements.

35. The method according to claim 28 wherein the step of preparing a videographic survey database further comprises the steps of:

(a) converting the identifying name for each of the plurality of elements to a barcode pattern using program steps stored on the base computer; and,

(b) printing a barcode pattern representing the identifying name of the elements onto a plurality of barcode labels using a barcode label printer associated with the base computer.

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36. A videographic survey system comprising:

(a) a base computer for preparing a videographic survey database having data fields for storing a video image of each of a plurality of elements of the videographic survey and data fields for storing an identifying name of each of the plurality of elements;

(b) means for transferring the data fields of the database to a memory module associated with a video camera system;

(c) a plurality of bar-codes associated one with each of the plurality of elements of the videographic survey, each barcode including a bar pattern representative of the identifying name of the element associated with the barcode;

(d) a barcode scanner associated with the video camera system for scanning a first of the plurality of bar-codes to determine the identifying name of the element associated with the first barcode; and,

(e) program steps stored on the memory module and executable by a digital data processor associated with the video camera system for selecting an appropriate data field of the database for storing a video image of the element associated with the first barcode said appropriate data field having the identifying name which substantially matches the first barcode associated therewith.

37. The videographic survey system of claim 36 further comprising:

(a) barcode converting program steps stored on the base computer for converting the plurality of element identifying names to a plurality of bar patterns; and,

(b) a barcode label printer associated with the base computer for printing the plurality of barcode labels.